




UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,044	07/09/2001	Masahiro Yoshida	35.C15555	3912
5514	7590	09/09/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			TRAN, HOAN H	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2852	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/900,044	YOSHIDA ET AL.	
	Examiner	Art Unit	
	Hoan H. Tran	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/17/2001</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figures 9 and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. Claims 1 and 7 are objected to because of the following informalities:

- Claim 1, line 9, replace "means" with --member--.
- Claim 7, lines 3-5, "said image or less" is unclear; i.e., is it related to the volume resistance of the surface layer?

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiyama ['900] in view of Chigono et al. ['456]

Ishiyama discloses an image forming apparatus [Fig. 1] comprising an image bearing member [1], a charging member [2], a charging power source [S1], a development-and-cleaning system [Col. 3, line 60-63] including a developer carrying member [3] for carrying a developer and a development power source [S2], and a transfer means [4]; wherein the gap between the developer carrying member and the image bearing member is in the range from 100 μm to 1000 μm [Col. 16, lines 15-19]. However, Ishiyama does not disclose the charging member bearing electrically conductive particles and the developer is provided with electrically conductive particles.

Chigono et al. disclose an image forming apparatus comprising a charging member [2] bearing electrically conductive particles [Col. 9, lines 6-16] having a particle resistance of no more than $10^{10} \Omega\text{cm}$, and an average diameter in the range from 10 nm or 0.01 μm to 50 μm [Col. 11, lines 22-44]; and a developer [4d] is provided with electrically conductive particles [Col. 10, line 66 to Col. 11, line 21].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the image forming apparatus disclosed by Ishiyama having the charging member bearing electrically conductive particles and the developer is provided with electrically conductive particles as taught by Chigono et al. for the purpose of capable of directly and desirably charging the image bearing member.

Regarding claim 6, Fig. 1 of Chigono et al. shows a moving direction of the charging member is opposite to a moving direction of the image bearing member in the nip portion.

Regarding claim 13, Ishiyama discloses a cartridge [20] including the image bearing member, the charging member and the development-and-cleaning system [Col. 5, lines 49-51].

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiyama in view of Chigono et al, as applied to claims 1-6 and 8-13 above, and further in view of Shakuto et al. [751]

Ishiyama in view of Chigono et al., as discussed above, discloses the claimed invention except for the image bearing member having a surface layer with a volume resistance between $1 \times 10^9 \Omega\text{cm}$ and $1 \times 10^{14} \Omega\text{cm}$.

Shakuto et al. disclose an image forming apparatus comprising an image bearing member

Art Unit: 2852

[1] having a surface layer [1C] with a volume resistance between $1 \times 10^8 \Omega\text{cm}$ and $1 \times 10^{12} \Omega\text{cm}$ [Col. 6, lines 10-40].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the image bearing member disclosed by Ishiyama, as modified by Chigono et al., having a surface layer with a volume resistance between $1 \times 10^8 \Omega\text{cm}$ and $1 \times 10^{12} \Omega\text{cm}$ as taught by Shakuto et al. for the purpose of preserving the chargeability as well as image quality of the image bearing member over a long period of time.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoan H. Tran whose telephone number is (571) 272-2141. The examiner can normally be reached from 8:30 AM - 5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Arthur Grimley can be reached at (571) 272-2136. The central office fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**HOAN TRAN
PRIMARY EXAMINER**

HHT
September 06, 2004